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***Model Performance Parity Measures  
for Facilities-Based Competition***

***November 1997***

**TCG**

**Teleport Communications Group**

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## INTRODUCTION

TCG's *The Performance Parity Principle* (July 1997), discussed the duty of incumbent local exchange carriers ("ILECs") under the Telecommunications Act of 1996 ("Act") to provide competitive local exchange carriers ("CLECs") with interconnection and access to unbundled network elements that is at least equal to that the ILECs provide to themselves. TCG refers to this statutory requirement as the **performance parity principle**.<sup>1</sup> In this paper, TCG proposes Model Performance Parity Measures for which ILECs should be required to provide comparative data to demonstrate their compliance with the performance parity principle. For each measure, TCG describes "*what*" the measure is and "*why*" it is necessary.

The proposed performance measures for interconnection and access to unbundled ILEC network elements reflect the fact that only facilities-based competition is **real** local exchange competition. Resellers of local exchange service simply rebrand ILEC services; facilities-based carriers, on the other hand, seek to differentiate their services from ILECs' services by offering state-of-the-art technology, unique service packages and the highest service quality at the most competitive price.

The primary potential impediment to robust facilities-based local exchange competition is the ILECs' legacy control over key telecommunications facilities which can degrade a facilities-based CLEC's performance. Just as the weakest link in a chain determines the strength of the entire chain, so does the worst-performing component of a telecommunications service determine the quality of that service. CLECs forced to accept substandard interconnection or access to unbundled ILEC elements will suffer because customers will assume that the CLEC, not the ILEC, is causing poor quality service. Therefore, facilities-based competitors must enjoy interconnection arrangements and access to unbundled elements that are **at least** equal in quality to that provided by the ILEC to its own retail operations or to any other carrier or wholesale customer, **whichever is higher**.<sup>2</sup>

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<sup>1</sup> *The Performance Parity Principle* is available on TCG's website at [www.tcg.com](http://www.tcg.com).

<sup>2</sup> 47 U.S.C. §251(c). Section 251(c)(2)(C) of the Act imposes on ILECs "the duty to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network

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The “whichever is higher” criterion is essential because an ILEC has an incentive to provide the best possible service to its largest customers (including reseller CLECs who, as rebranders, are in effect ILEC “sales agents”). So, it is important not to limit parity comparisons solely to the service quality the ILEC provides to itself. CLECs must also receive service equal to that which the ILEC provides its best customers. Otherwise, consumers will be robbed of competitive choice in the local telecommunications marketplace. Consumers must be able to judge a competitor on the added value it brings to the market.

All parties will benefit most from performance parity reports that lead directly to a “yes” or “no” answer: “yes” the ILEC provided parity for each performance measure, or “no” it did not. CLECs and regulators must be able to see quantitative data -- or performance measures -- and easily identify whether the ILEC has met its performance parity requirements. A comparison of data sets, one reflecting the ILEC’s performance to itself (as well as affiliates and ten largest commercial clients), and others reflecting the ILEC’s performance for each CLEC with which it interconnects, will quickly reveal whether the performance parity principle has been satisfied. In certain cases, tests of statistical significance will be required where there are differences in the absolute numerical outcomes reported for CLECs and ILECs.

TCG proposes 38 initial performance measures for monthly ILEC reporting. TCG believes that **all these measures should be required by state regulators immediately**. CLECs cannot be asked to “give up” any measures in order to be “assured” that other measures will be made and reported, for this would simply give the ILEC a welcome incentive to “game” the process of providing performance parity. Performance parity reports should be given to each CLEC on itself, on the ILEC, on the ILEC’s ten largest customers taken as a group, and on all CLECs taken as a group. When reporting on its performance parity *vis à vis* each CLEC, the ILEC should of course confine

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... that is at least equal to that provided by the local exchange carrier to itself or to any subsidiary, affiliate, or any other party to which the carrier provides interconnection.” (emphasis added). Section 251(c)(3) of the Act further imposes on the ILEC “the duty to provide, to any requesting telecommunications carrier for the provision of telecommunications service, nondiscriminatory access to network elements on an unbundled basis . . .” FCC rule 51.311(b) establishes that “nondiscriminatory” access with respect to unbundled elements means access that is, in fact, “at least equal” in quality.

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its measures to its performance within the geographical area served by the ILEC central offices within that CLEC's service territory.

Both regulators and carriers already have plenty of experience in measuring quality of performance. ILECs monitor their own performance in most critical areas. State commissions require ILECs to file service quality data in regular reports to ensure that customers receive adequate service. In addition, the FCC requires BOCs and other large ILECs to file service quality data which the FCC publishes in the annual report, "Quality of Service for Local Operating Companies Aggregated to the Holding Company Level." So, federal and state regulators have already set a precedent in asking for essentially the same type of service quality information that TCG asks the ILEC report on, and the ILECs already have experience in measuring and reporting on these types of performance categories. In some cases, where no existing internal measurement is performed by the ILEC (to TCG's knowledge), TCG proposes a reasonable proxy to demonstrate performance parity.

All parties stand to benefit immediately from satisfaction of the performance parity principle. The ILECs benefit because they will not be subject to repeated complaints, and can avoid lawsuits. The Bell operating companies ("BOCs") seeking to enter the interLATA market benefit additionally because they will satisfy the 14-point competitive checklist easily and swiftly.<sup>3</sup> Regulators benefit from being able to expedite review of interLATA entry applications from BOCs, and will have to review fewer complaints from CLECs regarding ILEC violation of interconnection agreements.<sup>4</sup> When CLECs benefit from good ILEC service, consumers benefit from improved service obtained more quickly from CLECs. Consumers also benefit from the cost savings all service providers will

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<sup>3</sup> 47 U.S.C. § 271 (c)(1)(B).

<sup>4</sup> The Department of Justice places great weight on the importance of performance benchmarks. In recommending denial of SBC's interLATA application in Oklahoma, the Department stated: "A record of performance benchmarks measured in an objective fashion -- and, if possible, commitments to maintain such standards -- is key to preventing the BOC from backsliding . . . Without such benchmarks in place, competitors and regulators will have considerable difficulty in detecting deterioration of wholesale support processes . . . ." Evaluation of the U.S. Department of Justice, In re Application of SBC Communications Inc. Et al. Pursuant to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in the State of Oklahoma, CC Docket No. 97-121 (May 16, 1997).

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realize when lengthy, costly regulatory or legal action is precluded. Finally, everyone benefits if competition becomes sufficiently robust so that no economic regulation is needed at all.

In view of the critical need for performance benchmarks to promote competition, and the tremendous benefits such benchmarks will afford all parties, it would serve state public utility commissions (PUCs) well to immediately establish the measures for which comparative data are to be recorded by ILECs. A nationally uniform reporting format would make it easier and less costly for all parties: regulators, ILECs and CLECs. State commissions should be free to add to national performance measures should they be required to do so by state legislation or should the state commissions otherwise find it appropriate to do so. States that adopt the uniform reporting standards will reduce uncertainty and attract further investment by entrants. NARUC can play a constructive role in ensuring consistency across states by encouraging the adoption of a model reporting template for ILECs in all states.<sup>5</sup>

Whatever measures are adopted, they must account for the transition from manual to electronic communication between carriers. In the short run, CLECs and ILECs will communicate with each other by “manual” means, such as telephone conversations and fax. Over time, electronic interfaces between CLEC and ILEC databases will be developed and deployed. Thus, model performance measures must account for both modes of communication between carriers. There may be multiple forms of interfaces (e.g., dedicated connections, Internet access, etc.), and the performance measure requirements must recognize the CLECs’ right to choose among these various options.

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<sup>5</sup> The performance parity principle applies to all ILECs per section 251 of the Act. Section 251(e) of the Act allows smaller carriers to be exempted from such requirements and the reporting requirements suggested in this paper upon showing that the ILEC would face undue economic burdens as a result and that such an exemption would be in the public interest.

## **MEASURED SEPARATELY BY CIRCUIT TYPE**

In measuring ILEC performance, a delineation among circuit type is crucial to ensure that an “apples to apples” comparison is made. Performance must be reported separately for analog and digital loops because digital loops are typically used for high capacity services, which CLECs focus on. Digital loop troubles will have a greater impact on a CLEC’s customer than analog loop troubles. Trouble with one digital loop serving a Centrex customer with 24 voice-grade circuits could cause more harm to the CLEC customer than a trouble with one analog loop serving one customer telephone.

In the digital service category, reports must be provided separately for DS-Os, DS-1s and DS-3s. A single DS-3 (the equivalent of 672 voice grade circuits) affects a much greater number of lines than a DS-0 (the equivalent of a single voice grade line). Therefore, any type of trouble with a DS-3 will have a much greater impact on a CLEC’s customers than a trouble with a DS-0. It would be inaccurate and inequitable to declare that an ILEC meets the performance parity principle based on average parity performance across all circuits because one problem with a CLEC’s DS-3 circuit could be damaging to the CLEC even if there were no problems at all with DS-1s and DS-0s. Moreover, standard ILEC provisioning and repair intervals vary between DS-3s, DS-1s and DS-0s, making aggregated service statistics even more misleading. So, separate reports must be issued for up to six categories of service in total: DS-0, DS-1, DS-3, and their analog equivalents.<sup>6</sup>

The ILEC needs to monitor performance of its own facilities according to loop type; it must do the same for CLECs in order to comply with the Act’s performance parity requirement. Disaggregated reporting helps the ILECs because it enables them to easily target trouble areas and to concentrate efforts to remedy any noncompliance. Disaggregated data also gives CLECs increased ability to monitor ILEC’s performance, which will minimize the need for the state public utilities commissions (“PUCs”) to get involved in complicated fact-finding missions and complaint proceedings. This will

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<sup>6</sup> In the future, performance parity reporting will also be necessary for non-circuit services such as ATM.



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in turn help PUCs fulfill their obligation to enforce interconnection agreements between ILECs and CLECs.

## **TCG'S PROPOSED PERFORMANCE MEASURES**

In this paper, TCG proposes an initial set of 38 performance measures for which TCG believes the ILEC should report comparative data to ensure that it provides the CLECs with performance parity as required by the Act. While this number may seem large at first, reporting on these categories will not burden the ILECs because they already maintain or have under development for their internal use the necessary monitoring systems and report-gathering capacity. These categories span four carrier processes: pre-ordering, provisioning, maintenance and repair. In addition, these measures address billing; network performance; operator services and directory assistance; directory listings; emergency services; and code openings. Lacking parity for any one of these categories, the ILEC will have failed its legal obligation.

### **Pre-Ordering**

To provide performance parity, ILECs must allow CLECs to enjoy equal access to information regarding ILEC customers. This is necessary to enable customers to evaluate CLEC offers on an apples-to-apples basis. Implicit in performance parity for pre-ordering is the ability of the ILEC to use CLECs' fact-finding to stifle competition. Every time the CLEC "asks the ILEC" for information about a customer's services, the ILEC is given advance warning that it may be about to lose a customer. Actual performance parity will not be realized until CLEC sales personnel can obtain the same information from ILEC databases within the same time frames as the ILEC's sales personnel, without having to "ask the ILEC." Initially, the CLECs will access information by manual means, such as calling ILEC personnel. ILEC response on the CLEC query must be separate from the ILEC's retail service and sales force; the ILEC sales and marketing organization must not be notified about the CLEC's query or be able to find out about it.

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***Item 1: Pre-Ordering Office Access within 20 Seconds***

**What:** Measures the proportion of CLEC calls answered by the ILEC within twenty seconds.

**Why:** When a consumer is transitioned from an ILEC to a CLEC's service, the CLEC needs information about the particular services that customer receives from the ILEC, to ensure that the CLEC can provide at least the same set of services. Consumers do not always know the services that they are obtaining, but ILECs do know and ILECs currently obtain customer information from their electronic databases. Facilities-based CLECs eventually must be able to access the same information through electronic interfaces between CLEC and ILEC electronic databases. Until then, however, CLECs must rely on the ILECs' manual processes to obtain this critical information. TCG believes that twenty seconds to answer a phone is a reasonable proxy for access that is "at least equal in quality" to the electronic access enjoyed by the ILEC.

TCG also recommends collecting information on "Order Provisioning Access Within 20 Seconds" and "Maintenance/Repair Access Within 20 Seconds". The rationale for collecting these measures is the same as that for pre-ordering. The only difference is that the call from TCG takes place while TCG is conducting a different task on behalf of the customer (provisioning and repair, respectively).

***Item 2: Pre-Order Information System Availability***

**What:** Measures the percent of time that the ILEC and the CLECs have electronic access to the ILEC's pre-ordering databases.

**Why:** Should an ILEC choose to utilize electronic interfaces to make customer information available to the CLEC, the CLEC must have access to ILEC pre-ordering databases through electronic interfaces at least the same percentage of time that the ILEC itself has direct access to the databases through

electronic means. This performance measure precludes a lengthy “transition phase” during which an ILEC provides a mix of manual and electronic interfaces to CLECs, while serving its own needs electronically.

***Item 3: Obtain Appointment Schedule via a System Interface***

**What:** Measures the percent of time the CLEC has access to the ILEC pre-ordering database to: (1) view available installation appointments; and (2) to electronically schedule installation appointments by ILEC personnel.

**Why:** In order for a CLEC to schedule a turn-up time for service to a new customer utilizing ILEC unbundled elements (e.g., loops) or reselling ILEC service, a CLEC must know when ILEC installation personnel are available, without having to “ask the ILEC.” The ability to directly access the ILEC database will provide this capability. The CLEC also must be able to schedule appointments electronically on the same basis as the ILEC. This will allow CLECs to give information to their customers without fear that the ILEC will delay schedules so as to discriminate against CLEC customers.

***Item 4: Obtain Customer Service Record (CSR) via a System Interface***

**What:** Measures the percent of time the CLEC has access to information as to which services a customer currently receives from the ILEC.

**Why:** When a CLEC seeks to serve an ILEC customer, the CLEC must know what services, features, and options the customer receives from the ILEC. The customer will not necessarily have access to that information. If a CLEC simply “asks the ILEC,” the ILEC will know the customers being addressed by its competitors, and then be in a position to target those customers for special treatment.<sup>7</sup> This measure of performance parity for electronic

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<sup>7</sup> Note well: the mere existence of electronic interfaces does not guarantee responsible competitive behavior by the ILEC. “Fire walls” between the ILEC systems personnel who service CLEC orders and ILEC sales force should be permanently established.

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interfaces ensures that the CLEC gains access to this information in a manner that will not compromise the CLEC's competitive position.

#### ***Item 5: Firm Order Commitment ("FOC") Intervals***

**What:** A FOC is a time commitment from the ILEC to the CLEC (or to the ILEC customer in the provision of its own retail service) indicating when a requested installation will be completed. Average FOC interval is the mean amount of time that it takes an ILEC to set and communicate the date a work order will be completed.

**Why:** Customers always want to know when facilities will be installed and service turned up. A CLEC's inability to commit to an install date owing to the ILEC's failure to provide a timely FOC will disadvantage the CLEC in the eyes of consumers. The underlying theme behind performance parity for FOCs is "*first in, first out.*" The first order requested must be the first order given a FOC. All orders should be given the same FOC priority without regard to whether that order is for an ILEC customer or a CLEC customer.

Some ILECs suggest that FOC records be documented by recording the percentage that are met within a certain time frame (e.g., within 24 hours). Such statistics do not meet the performance parity principle, as the following example shows. Suppose that the ILEC delivers a FOC within 24 hours in exactly 90% of the cases for both a CLEC and its own customers. The ILEC could actually provide FOCs to its own customers within an average of 2 hours while providing FOCs to the CLEC in an average of 23 hours. The commercial advantage to the ILEC in this scenario is that the ILEC would often be able to provide a FOC to its customers the same day as a customer requests service, while CLEC customers would generally have to wait until the next day.

## **Provisioning**

Provisioning for facilities-based competitors involves coordination of commitments for installations, database entry and telephone number activation. The activities an ILEC must perform for a CLEC are comparable to new service or location changes for the ILEC's own retail customers.

### ***Item 6: Average Installation Interval***

**What:** The "Average Installation Interval" is the time it takes the ILEC to install physical facilities such as unbundled loops.

**Why:** The "Average Installation Interval" indicates whether the ILEC is providing parity in installation because it includes all of the instances in which an ILEC installs a certain class of facility for a competitor and for itself. However, parity in average actual installation intervals itself is not sufficient because of variations in the installation periods desired by customers.

### ***Item 7: Installation Commitments Met***

**What:** "Installation Commitments Met" measures the percent of times that the ILEC installs a facility to a CLEC customer or one of its own customers on the Customer Concurred Due Date (CCDD).

**Why:** Installation on a due date requires coordination among many parties: ILEC, CLEC, equipment vendors and the CLEC customer. Failure to meet a CCDD causes great inconvenience to the customer as well as to the other parties whose activities must be coordinated. "Average Installation Interval" (Item 6) is a necessary, but not sufficient, measure of performance parity for installation commitments, because it is possible for CLEC averages to be equal to ILEC averages, even though far fewer CLEC customers than ILEC customers experienced "mets." True performance parity requires that the same percentage of CLEC customers and ILEC customers experienced "mets."

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***Item 8: Installation Desired Due Dates Met***

**What:** “Installation Desired Due Dates Met” measures the percentage of jobs that are completed in the interval requested by the customer.

**Why:** Many customers request “expedited” due dates, and even for “normal” due dates, the ILEC will not always be able to commit to installation in the time frame requested by the customer. Meeting the dates promised by the ILEC (item 7) means little if those commitment dates seldom match the dates desired by the customer. “Installation Desired Due Dates Met” must be reported because it measures the ILEC’s flexibility and impartiality in meeting the requested dates of its own and the CLECs’ customers.

***Item 9: New Service Trouble Experienced Within 30-Days of Installation***

**What:** Measures the percent of ILEC facilities that exhibit troubles within 30 days of installation by the ILEC.

**Why:** A customer’s first impression of a CLEC’s service is largely influenced by the first 30 days of service. Troubles within 30 days of installation most likely indicate that the installation itself was faulty and points to a risk of further troubles for the CLEC customer.

***Item 10: Premature Disconnect***

**What:** Measures the percent of cases where the ILEC disconnects service to a customer before the time committed to by the ILEC.

**Why:** The ILEC must disconnect its service to a customer switching to a CLEC at an agreed date and time so that service can be transferred to the CLEC customer seamlessly, without disruption of the customer’s service. Strictly speaking there is no comparable function that an ILEC performs for itself. If the ILEC disconnects its service before the customer concurred time, the customer will go without service until CLEC service is connected to the customer. A premature disconnect by the ILEC will prevent a seamless

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transition between carriers. Requiring ILECs to report on disconnects worked prematurely will ensure that the ILEC has an incentive not to disconnect customers prematurely.

***Item 11: Delayed Orders Compared to Total Orders Placed***

**What:** Measures the percentage of orders delayed beyond the Customer Concurred Due Date (CCDD).

**Why:** The ILEC has an obvious competitive incentive to fill its own orders before those of its competitors. Various reasons - such as lack of equipment - may be offered as excuses for delay. A requirement to measure comparative data on "Delayed Orders Compared to Total Orders Placed" will encourage ILECs to complete all activities necessary to meet the due date.

***Item 12: Delayed Order Interval To Completion Date***

**What:** Measures the actual delayed order interval, prior to completion of the order.

**Why:** Delayed orders should be cleared as soon as possible, and the average elapsed time before delayed orders are cleared should be equivalent for ILEC and CLEC customers. If the average time is the same, however, it is still necessary to measure the proportion of long delayed order intervals (Item 13).

***Item 13: Delayed Orders Cleared After 30 Days***

**What:** Measures the percentage of orders delayed for a period of more than 30 days.

**Why:** Delayed orders should be cleared as soon as possible. Requiring ILECs to report comparative data on the proportion of orders cleared after 30 days of delay will encourage ILECs to clear any delayed orders for CLEC customers with the same efficiency as it does for its own customers.

***Item 14: Coordinated Customer Conversion***

**What:** Measures the interval between the time the ILEC establishes a physical connection between the CLEC facilities to the local loop of a customer and the time the ILEC enters information into the proper databases that will allow calls to the customer to be routed properly via number portability.

**Why:** When a CLEC purchases an unbundled loop from the ILEC while concurrently requesting number portability, the ILEC must perform two different tasks for a CLEC to be able to provide service to the customer. First, the ILEC must establish the physical connection between the CLEC's facilities to the local loop serving the customer. Second, the ILEC must enter information into the proper databases so calls to the customer are routed to the CLEC's switch. Both of these steps must take place at nearly the same time, or the customer will experience an extended period where it does not have any telephone service. If the physical connection is completed without the database updates, then calls to the customer will be routed to a switch (the ILEC's) to which the customer is no longer connected and the call will be dropped. If database updates are made without the physical connections being completed, the call will be sent to a switch (the CLEC's) to which the customer is not yet connected, and the call will be dropped. Measuring what ILEC technicians term "Customer Affecting Coordinated Conversion Window" is essential to assure that the ILEC performs these tasks for the CLEC just as efficiently as it does when it implements upgrades or conversions for its own customers.

**Maintenance/Repair**

Maintenance refers to keeping a network functioning smoothly and adequately, while repair refers to fixing a problem once it has been reported as a "trouble" by a customer. Since the number of troubles and repair performance depend largely on how well the network is



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groomed and maintained in the first instance, TCG's suggested performance measures treat Maintenance/Repair as one category.

***Item 15: Mean Time To Repair (MTTR)***

**What:** Measures the average length of time it takes the ILEC to repair ILEC facilities.

**Why:** The most important issue to a customer regarding an outage is the duration of the outage. Requiring the ILEC to report comparative data on "MTTR" will encourage the ILEC to repair a trouble or restore service as quickly for a CLEC customer as it does for its own retail customers.

***Item 16: Out-of-Service Cleared in X Hours or Less***

**What:** Measures the percentage of troubles for service to a CLEC customer or ILEC customer that are cleared by the ILEC in a standard time frame.

**Why:** Customers expect service outages to be cleared within a certain time frame. This interval, by industry practice, varies according to the circuit type used by the carrier to serve the customer. Digital-capable loops, DS-0s and DS-1s are subject to restoral interval goals of 3 hours, DS-3s to 2 hours, and analog circuits to 12-hours. "Out of service restoral within X hours" compares the percent of restorals made for the ILEC's customers and the CLEC's customers within the interval relevant to each type of circuit. This measure is necessary because MTTR could be identical for ILECs and CLECs even though CLECs experience many outages that last much longer than the ILEC norm for clearance. This measure is intended to preclude a situation in which the ILEC provides the same average time to repair for CLECs as for itself by taking a very long time to repair some CLEC outages and clearing some CLEC outages in a very short time. The few long CLEC intervals could be very damaging to CLECs.

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***Item 17: Repair Commitments Met***

**What:** Measures the proportion of the time that the ILEC repairs facilities in the time frame that it promised to either a CLEC or an ILEC customer.

**Why:** CLECs must rely on promises made by the ILEC to the CLEC when making representations to the CLEC customer as to the time required to complete a repair and restore service. The ILEC will not be providing performance parity if it fails to timely complete repairs more often for the CLEC than it fails to meet its restoral commitment for its own customers. CLEC customers will be harmed if repair commitments made to ILEC customers are met more often than repair commitments to CLEC customers.

***Item 18: Repeat Trouble within 30 Days of Previous Trouble***

**What:** Measures the proportion of the time that a facility installed by an ILEC becomes deficient within 30 days of the last repair by the ILEC of that facility.

**Why:** It is TCG's experience that repeat troubles within 30 days of the repair of facilities tend to point to faulty initial repairs, and are particularly harmful to a CLEC customer. This proposed measure encourages ILECs to correct troubles properly for CLEC customers.

***Item 19: Status Calls According to ILEC Processes***

**What:** Measures the time interval in which ILEC and CLEC personnel are provided with updated information regarding the status of trouble tickets.

**Why:** ILECs typically update the status of trouble tickets electronically at regular time intervals (e.g., every 30 minutes). Whatever the time interval, and regardless of whether status reports to CLECs are oral (as now) or electronic (as expected), CLECs must have access to ILEC status reports relating to CLEC troubles within the same time interval as the ILEC enjoys to ensure that CLECs can properly service their customers. The ILEC must time stamp

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all updates that refer to CLEC customer troubles so that the CLECs are assured that they are reporting timely information to their customers.

**Billing**

TCG, as a facilities-based carrier, maintains its own billing functions for its own customers, so when providing service from its own switch TCG does not need any information from ILECs regarding customer usage. However, TCG -- like all CLECs -- must establish a billing relationship with the ILEC related to the exchange of traffic where each carrier bills the other carrier for local traffic terminated on its network.

***Item 20: Response to Billing Inquiry***

*What:* Measures the proportion of the time that the ILEC acknowledges a billing inquiry within the same time frame the ILEC acknowledges its own customers' billing inquiries or within 24 hours of receipt, whichever is less.

*Why:* To resolve CLEC billing inquiries quickly, a "clock" should start promptly. The ILEC may have an internal response standard for response to billing inquiries which is less than 24 hours, in which case, responses to CLEC billing inquiries should be made within that time frame, and the measure should report the percent of time the response is made to both ILEC customers and CLECs within that time frame. Generically, no more than 24 hours should elapse before an ILEC acknowledges the CLEC billing concern and begins to investigate the issue.

***Item 21: ILEC End User Calls Misrated, Sorted by Called-To Carrier***

*What:* Measures the rate at which calls from an ILEC customer to a CLEC customer are misrated.

*Why:* CLEC customers have been adversely affected when ILEC customers calling them were charged toll rates by the ILEC rather than local rates because the ILEC's billing system incorrectly calculated charges. For example, if an

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ILEC customer calls a CLEC customer in the local service area, the caller would be surprised and confused when he/she receives the toll-rated charges. If the called party is a business, misrating could discourage callers from continuing to deal with the business, and diminished calls could lead the CLEC customers to change back to the ILEC.

***Item 22: Accuracy of Payphone Rating Table***

**What:** Measures the rate at which ILEC and NXX codes are misrated in the ILEC's pay phone tables.

**Why:** Similar misrating of calls may occur when a customer calling from an ILEC pay phone to a CLEC customer is over-charged. Over-charging would have the same potentially harmful impact on the CLEC business customer as in item 21.

**Operator Services and Directory Assistance**

The FCC's Interconnection Order makes it clear that the Act requires ILECs to make available operator services and directory assistance services to CLEC customers that are at least equal in quality to what it provides on its own behalf to ILEC customers.<sup>8</sup> Each of the following measures must be separately reported for operator services and directory assistance.

***Items 23: Mean Time To Answer***

**What:** Measures the average time it takes an ILEC operator to answer calls placed by ILEC customers and CLEC customers.

**Why:** An ILEC can tell (by the identity of a trunk group or terminal) whether a caller is an ILEC customer or a CLEC customer. An ILEC could subject

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<sup>8</sup> In re Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket 96-98, August 8, 1996 at ¶534.

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CLEC callers to long waiting periods before an ILEC operator responds. The response time of the ILEC DA or OA operator must be compared for CLEC customers and ILEC customers.

#### ***Items 24: Mean Hold Time***

**What:** Measures the time ILEC or CLEC customers are put on hold while an ILEC operator accesses the desired information.

**Why:** For the same reasons as in item 23, it is necessary to protect CLEC customers from being put on hold for abnormal periods after the ILEC operator has connected.

#### ***Item 25: Call Abandonment (Hang-up)***

**What:** Measures the rate at which calls to an ILEC operator by ILEC and CLEC customers are terminated before the desired information is attained.

**Why:** Protects CLEC customers from having their calls terminated before the requested information is accessed.

#### ***Items 26: Call Blockage***

**What:** Measures the rate at which ILEC and CLEC customers are absolutely unable to access the ILEC operator due to insufficient ILEC trunking capacity or faulty ILEC connections.

**Why:** Ensures that a CLEC customer will always be able to access an ILEC operator. Data are recorded at the ILEC's network management center (NMC) as a normal function of network management.

#### ***Items 27: Average Work Time***

**What:** Measures the length of time it takes an ILEC operator to answer a query from ILEC and CLEC customers.

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*Why:* Protects CLEC customers from waiting a long time for a response by an ILEC operator.

**Network Performance**

TCG has experienced numerous and continuous problems with ILECs that fail to provision adequate facilities to accommodate all traffic from the ILEC's customers to TCG's customers. The result is incomplete calls which the CLEC's customers know nothing about. Many of these failures result from inadequate trunking or switching capacity between the ILEC's end office and its tandem, although some are caused by inadequate interconnection trunks or switching from the ILEC to the CLEC. An ILEC can represent the blocked-call problem to its customers as one caused by the fact that the call is going "off" the ILEC's network. The competitive incentive to provide inadequate interconnection facilities can be mitigated by performance measures for call blockage. Such measures are at the top of the list of "must haves" for CLECs.<sup>9</sup>

***Item 28: Ratio of Calls Blocked to Calls Attempted***

*What:* Compares the percent of calls originated by ILEC customers that do not complete to CLEC customers, to the percent of intra-ILEC calls that fail to complete.

*Why:* Blocked calls point directly to a lack of adequate planning or performance on the ILEC's part -- suggesting a high probability of willful misconduct. The ILEC must provide adequate trunk and switch capacity and reliability within its network and between its network and the CLEC network to route calls to CLEC customers with no greater call blockage than the ILEC itself experiences.

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<sup>9</sup> In denying Ameritech's application to enter the long distance market in Michigan, the FCC noted in particular that detailed information about trunk blocking is needed to evaluate whether an ILEC is meeting its performance parity obligations. Application of Ameritech Michigan to Provide In Region InterLATA Services in Michigan, CC Docket No. 97-137, FCC 97-298 (August 19, 1996)("Ameritech Order") at paragraphs 232-235 and footnote 605.

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CLECs forecast traffic volumes and add additional trunk groups and switching capacity to handle outbound calls including calls to ILEC customers. The ILEC must also accurately forecast traffic volumes from its customers to the CLEC, and provide adequate peak-hour capacity. Whether one-way or two-way trunking is used, capacity must be sufficient to provide performance parity. ILECs must not be allowed to thwart CLECs' ability to serve their customers by refusing to install sufficient trunks or switch capacity in a timely manner, or by failing to maintain CLEC-specific facilities (such as interconnection trunks) at the same level as the intra-ILEC network.

**Code Opening**

Management of the customer's telephone number is critical to CLEC customers regardless of whether the CLEC is serving customers entirely on its own network or by use of unbundled ILEC loops. The suggested performance parity measures are based on the tasks that the ILEC must perform when it uses new NXX codes for its own customers or corrects NXX-related problems for its own customers. These concerns will remain even after the North American Numbering Plan Administrator takes over the responsibility for assigning telephone numbers.

***Item 29: NXX Loaded and Tested Prior to LERG Effective Date***

***What:*** Measures the proportion of ILEC and CLEC NXX codes that are loaded in essential databases and tested for functionality prior to the Local Exchange Routing Guide (LERG) effective date.

***Why:*** A CLEC customer can't receive a call from an ILEC customer (a majority of the potential callers) until the ILEC has updated its databases and switches to reflect the proper routing information to new NXX codes used by the CLEC. The CLEC cannot provide full local exchange service to its customers until the ILEC has made the proper updates. Therefore, it is

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important that the ILEC make these updates in the same manner that it would for its own customers. For the purpose of this measure, TCG suggests the LERG effective date since this is the first date that either a CLEC or an ILEC would be able to serve a customer with a new code.

#### ***Item 30: MTTR For NXX Troubles***

**What:** Measures the average time it takes the ILEC to resolve troubles that prevent ILEC customers from reaching CLEC customers having a particular NXX.

**Why:** It has unfortunately been TCG's experience that ILECs, from time to time, drop NXXs from their switches and/or databases after the NXXs have been correctly entered. This is a serious issue because customers with numbers that belong to a dropped NXX are unable to receive calls until the problem is resolved.

In the past, TCG has asked for explanations from the ILECs when NXXs are dropped. While answers are usually unavailable, human error and willful misconduct are the logical explanations. Since ILECs have the competitive incentive to restore their own codes as quickly as possible, ILECs should correct troubles for CLEC NXX codes in time frames that are "at least equal" to the time frames in which the ILECs correct ILEC NXX problems.

#### **Emergency Services (911)**

CLECs have certain obligations to the state to provide adequate emergency services to their customers. To meet these, CLECs supply location and numbers of all customers for entry into the "911" databases which the ILECs typically control. (States historically gave ILECs ownership of the "911" databases and only the ILECs can ensure that data supplied by the CLECs is entered promptly and correctly.) A delay in timely database updates will delay CLECs from providing consumers with competitive local exchange service because CLECs are not allowed to -- and TCG as a matter of policy will not -- offer basic local exchange



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telecommunications service without 911 capability. Improper entry can also endanger lives.<sup>10</sup>

***Item 31: Selective Router Update within 24 hours***

**What:** The selective router is a database that sends an emergency call to the correct dispatch center based on the telephone number of the calling party. This item compares the proportion of CLEC customer numbers that are entered by the ILEC into the selective router database within 24 hours of receipt to the proportion of ILEC customer numbers entered within the same time frame.

**Why:** CLECs will rely on the ILEC to enter information required to determine the dispatch center associated with each of the CLECs' customers. Reporting on "Selective Router Update within 24 hours" will encourage the ILEC to input information regarding CLEC customers into the Selective Router database in a timely manner.

***Item 32: ALI Database Update within 24 Hours***

**What:** The ILEC typically has responsibility for managing the Automatic Location Identifier (ALI) database which correlates each telephone number with an address so that emergency services can be dispatched to the correct location. This item measures the proportion of customer numbers that are entered by the ILEC into the ALI database within 24 hours.

**Why:** Reporting on "ALI Database Update within 24 hours" encourages the ILEC to input the information for CLEC customers into the ALI database in a timely manner.

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<sup>10</sup> The Michigan Commission has stressed that "the public must not wait until [parity of database entry] . . . results in serious harm before [the RBOC] can be required to fix the problem." In re Complaint of the City of Southfield against Ameritech Michigan, Opinion and Order, Michigan Public Service Commission, Case No. U-11229, Sept. 30, 1997 at 12.